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CPU:
LGA1150
System Chipset:
LYNXPOINT-H81
Main Memory:
Dual Channel/DDR-III*2(Max 32GB)
1600/ 1333 /1066

Onboard Device:
Super I/O IT8728F-EX
LAN Realtek 8111G
HD Codec ALC892

Power solution:
CPU Voltage Regulators:4Phase by ISL95812
DDR Voltage Regulators:1Phase by UP15⁴

Expansion Slots:
PCI EXPRESS 16X SLOT*1
PCI EXPRESS 1X SLOT*2

REAR IO:
PS/2 Keyboard + Mouse Ports
VGA Port
DVI Port
2 layer USB3.0(2.0) Ports
Gb RJ-45 +2 USB2.0 Ports
Audio Jackets
Parallel Port

Front I/O:
SATA3 * 2 SATA2*2
USB 2.0 Header * 2
CPU /System1 FAN
SPDIF Out * 1
Front Audio Header
Serial Header
CIR Header
PCI SLOT*1

Table 1-2. Desktop Lynx Point SKUs

| Feature Set | | SKU Name | | | | | |
|--|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | Intel® Q87 Express Chipset | Intel® Q85 Express Chipset | Intel® B85 Express Chipset | Intel® Z87 Express Chipset | Intel® H87 Express Chipset | Intel® H81 Express Chipset |
| Flexible I/O | | Yes | No | No | Yes | Yes | No |
| PCI Express* 2.0 Ports | | 8 ⁴ | 8 | 8 | 8 ⁴ | 8 ⁴ | 6 |
| Total number of USB ports | | 14 | 14 | 12 ⁵ | 14 | 14 | 10 ⁶ |
| • USB 3.0 Capable Ports (SuperSpeed and all USB 2.0 speeds) | | 4(6) ⁷ | 4 | 4 | 4(6) ⁷ | 4(6) ⁷ | 2 ⁸ |
| • USB 2.0 Only Ports | | 10(8) ⁹ | 10 | 8 | 10(8) ⁹ | 10(8) ⁹ | 8 |
| Total number of SATA ports | | 4(6) ¹⁰ | 6 | 6 | 4(6) ¹⁰ | 4(6) ¹⁰ | 4 ¹¹ |
| • SATA Ports (6 Gb/s, 3 Gb/s, and 1.5 Gb/s) | | 6 | 4 ¹² | 4 ¹² | 6 | 6 | 2 ¹³ |
| • SATA Ports (3 Gb/s and 1.5 Gb/s only) | | 0 | 2 | 2 | 0 | 0 | 2 |
| VGA | | Yes | Yes | Yes | Yes | Yes | Yes |
| Intel® Rapid Storage Technology | AHCI | Yes | Yes | Yes | Yes | Yes | Yes |
| | RAID 0/1/5/10 Support | Yes | No | No | Yes | Yes | No |
| | Intel® Smart Response Technology ¹⁴ | Yes | No | No | Yes | Yes | No |
| Intel® Anti-Theft Technology ¹⁵ | | Yes | Yes | Yes | Yes | Yes | Yes |
| Intel® Active Management Technology 9.0 | | Yes | No | No | No | No | No |
| Intel® Small Business Advantage ¹⁶ | | Yes | Yes | Yes | No | Yes ¹⁷ | No |
| Intel Rapid Start Technology ¹⁸ | | Yes | Yes | Yes | Yes | Yes | No |
| Intel® Identity Protection Technology (Intel® IPT) ¹⁹ | | Yes | No | No | No | No | No |
| Near Field Communication ²⁰ | | Yes | Yes | Yes | Yes | Yes | Yes |
| ACPI S1 State Support | | Yes | Yes | Yes | Yes | Yes | Yes |

HW Engineer:

Date:

HW Leader1:

Date:

HW Leader2:

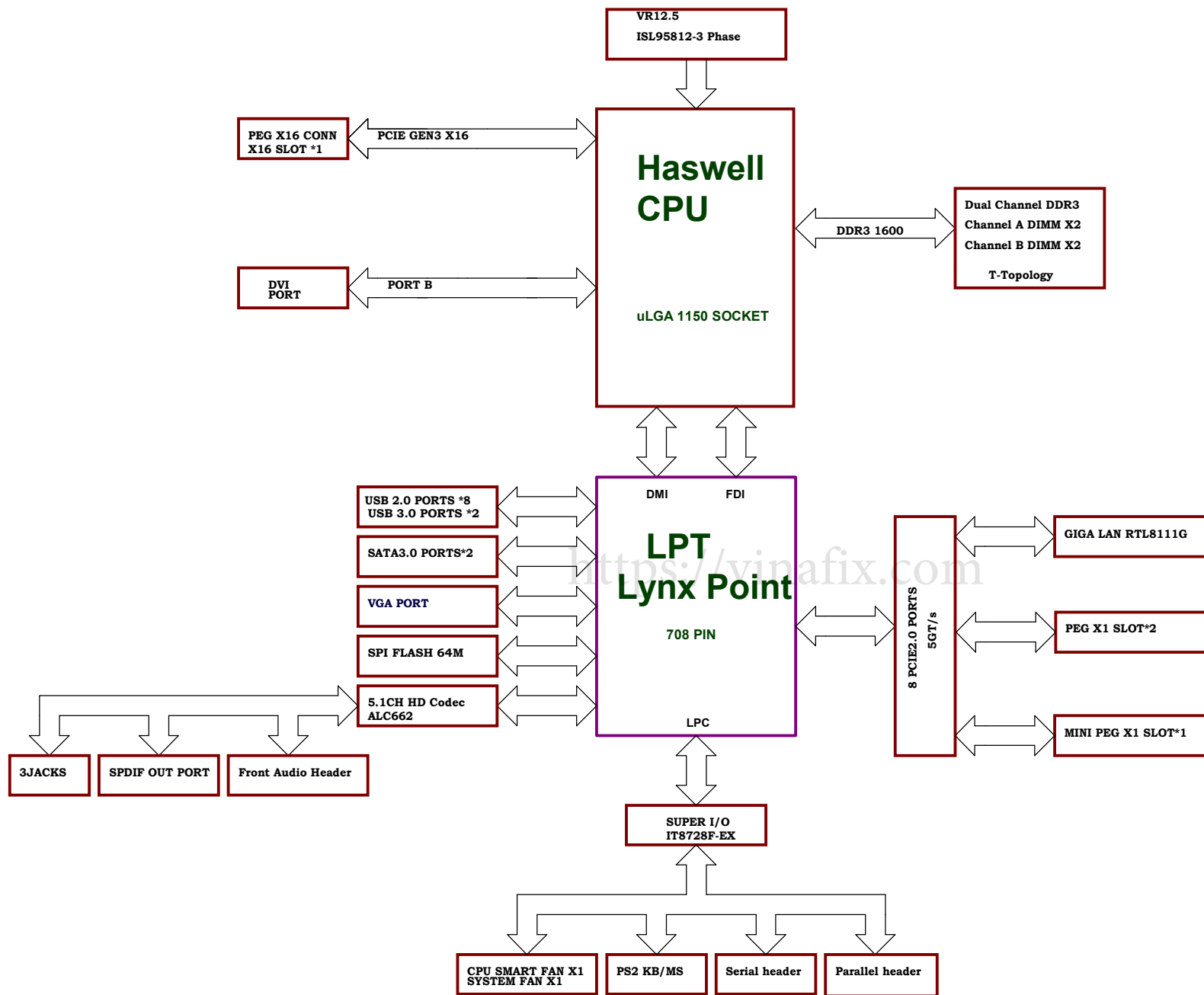
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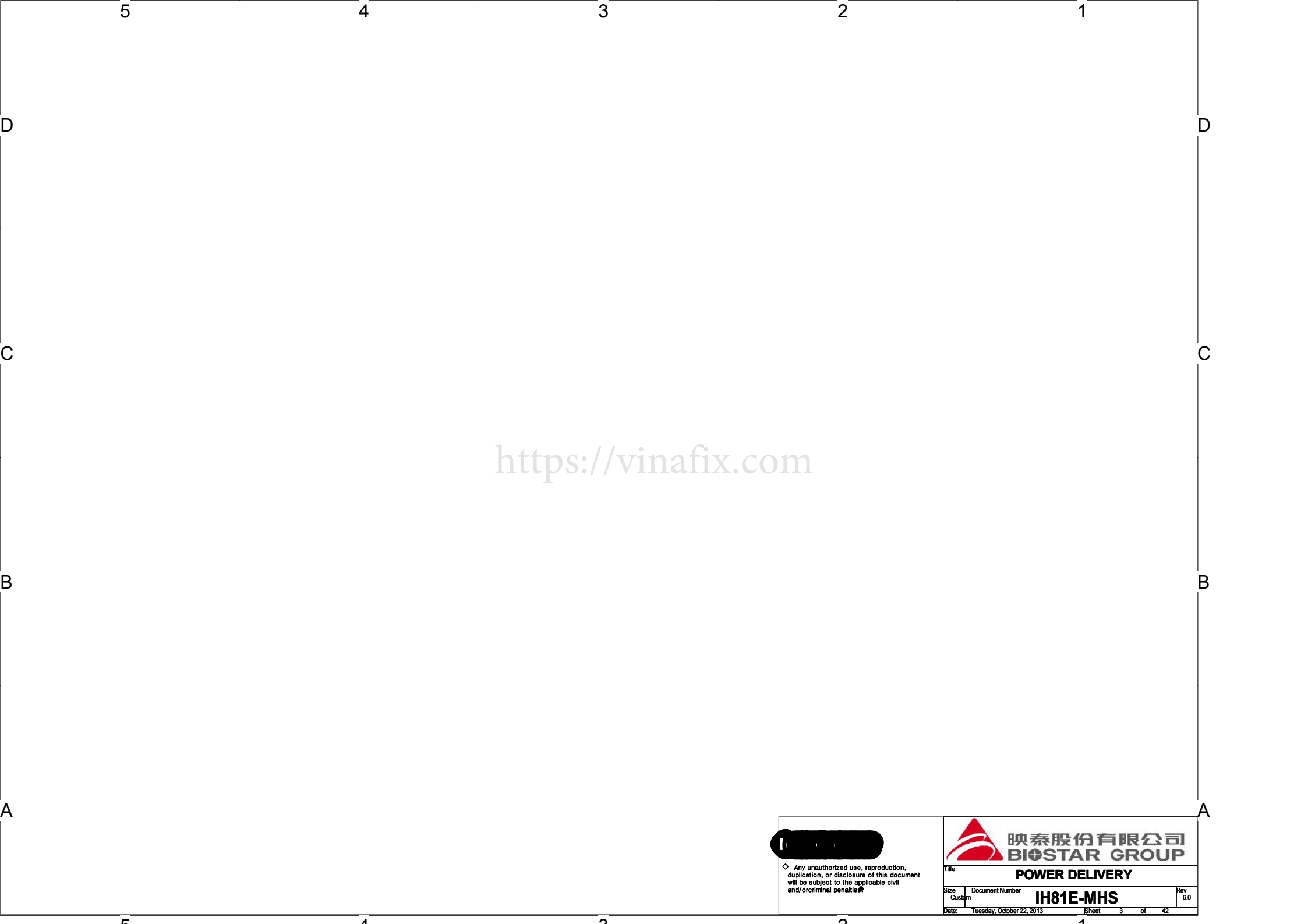
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POWER DELIVERY

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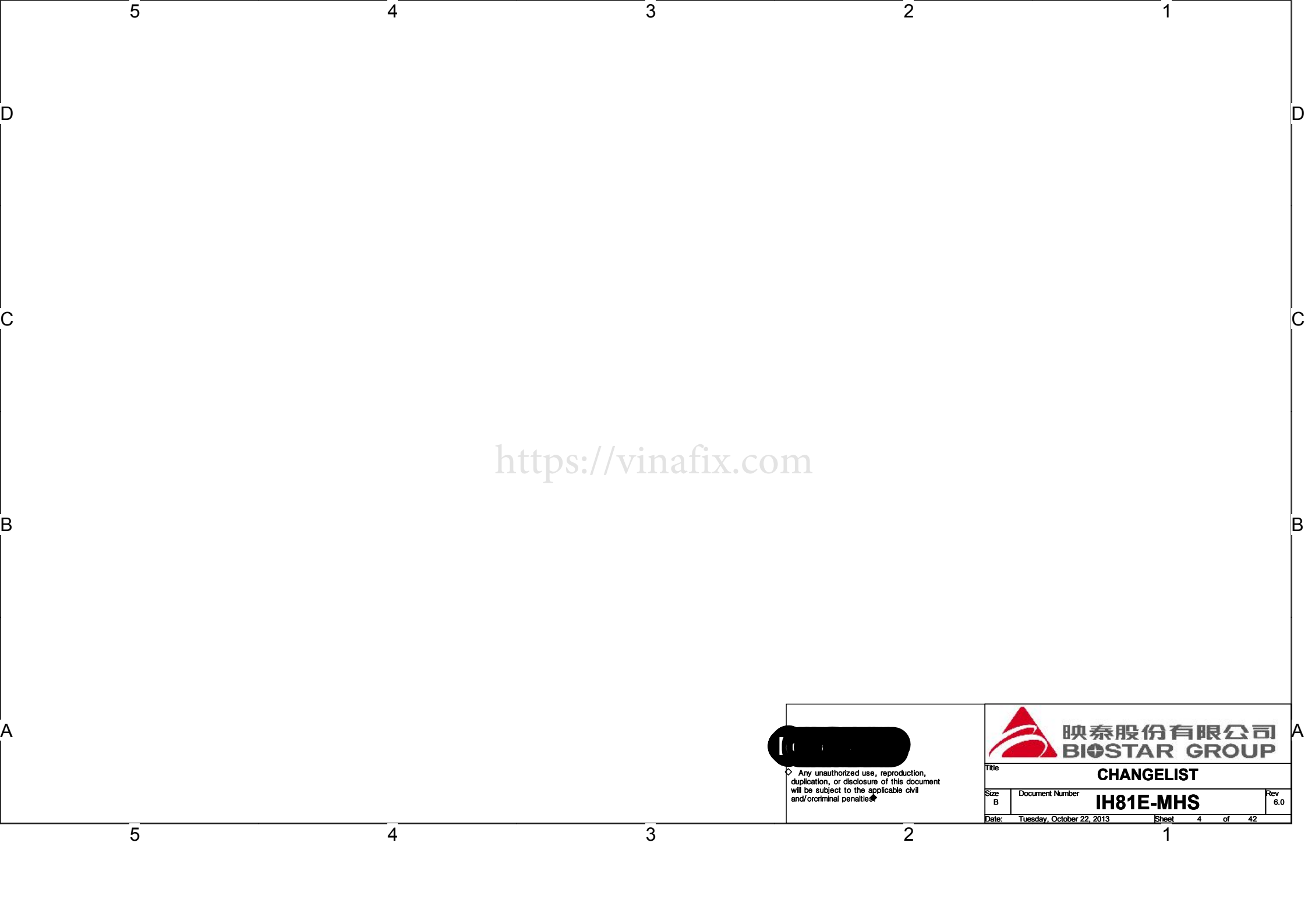
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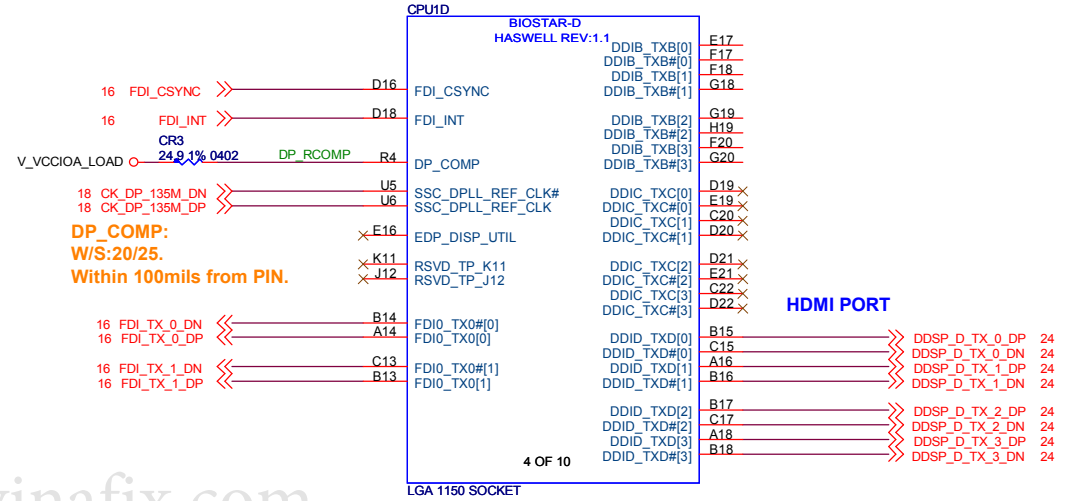
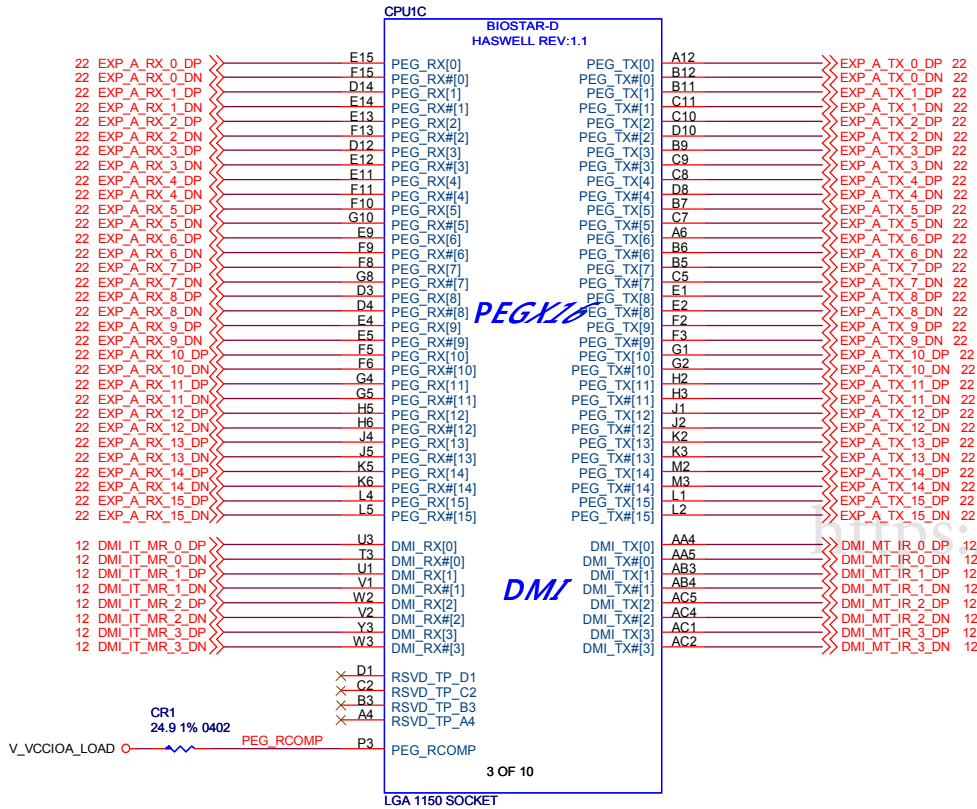


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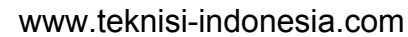
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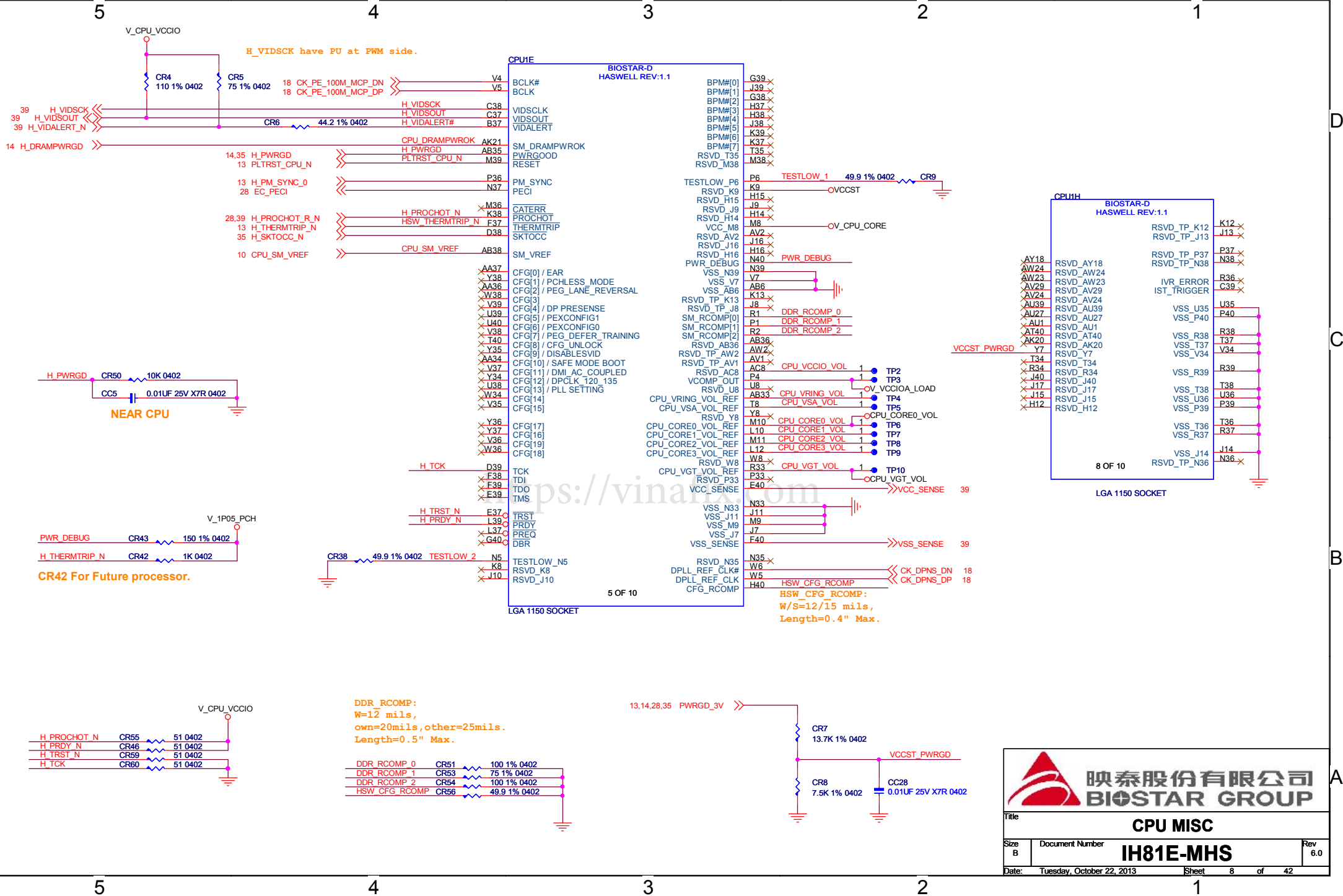
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| | | | |
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| Title CPU DDR CHANNEL A | | | |
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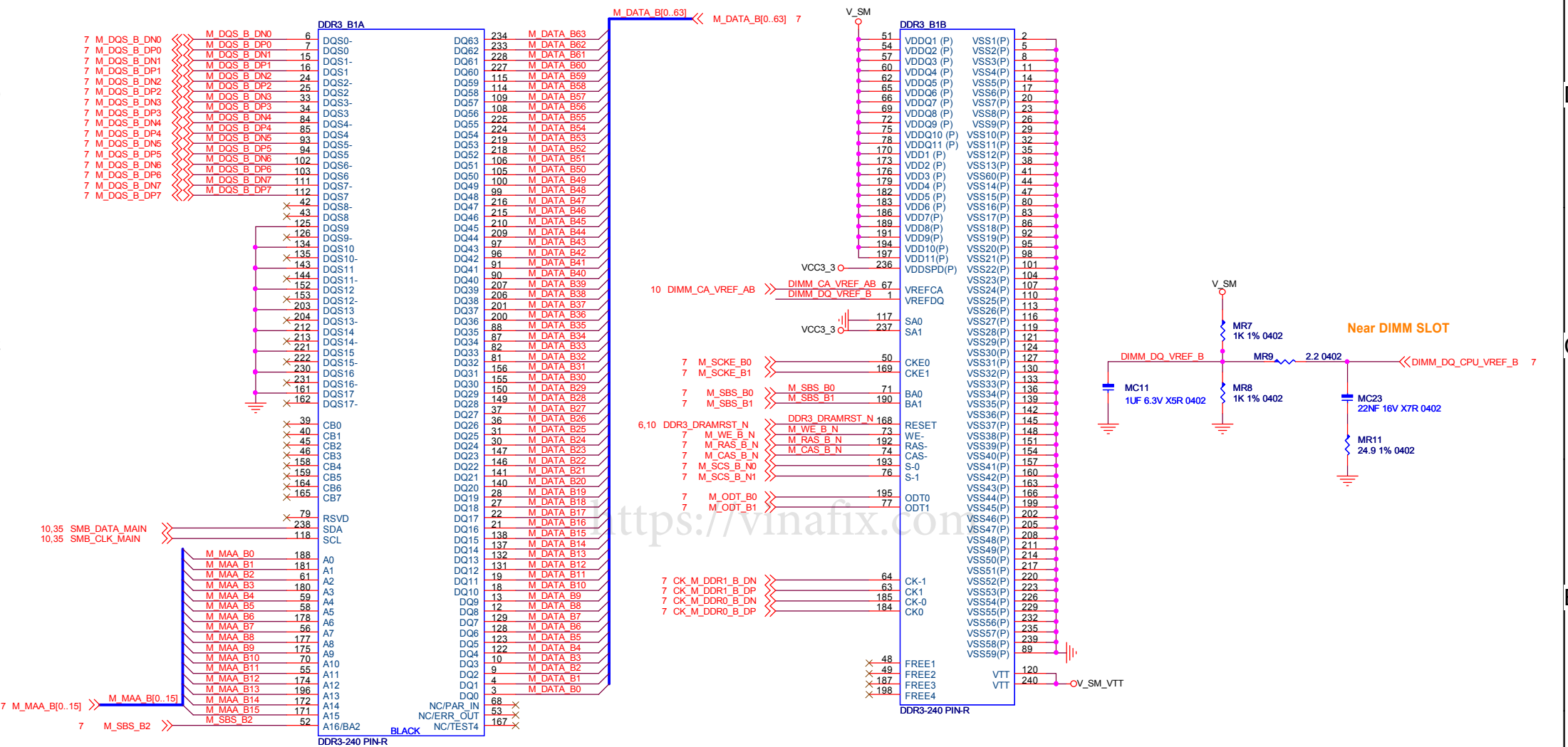


| | | | | | | | |
|-------|---------------------------|--|--|--------------------------|---|-----|----|
| Title | | | | CPU DDR CHANNEL A | | | |
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MEMORY PART: M+Reference



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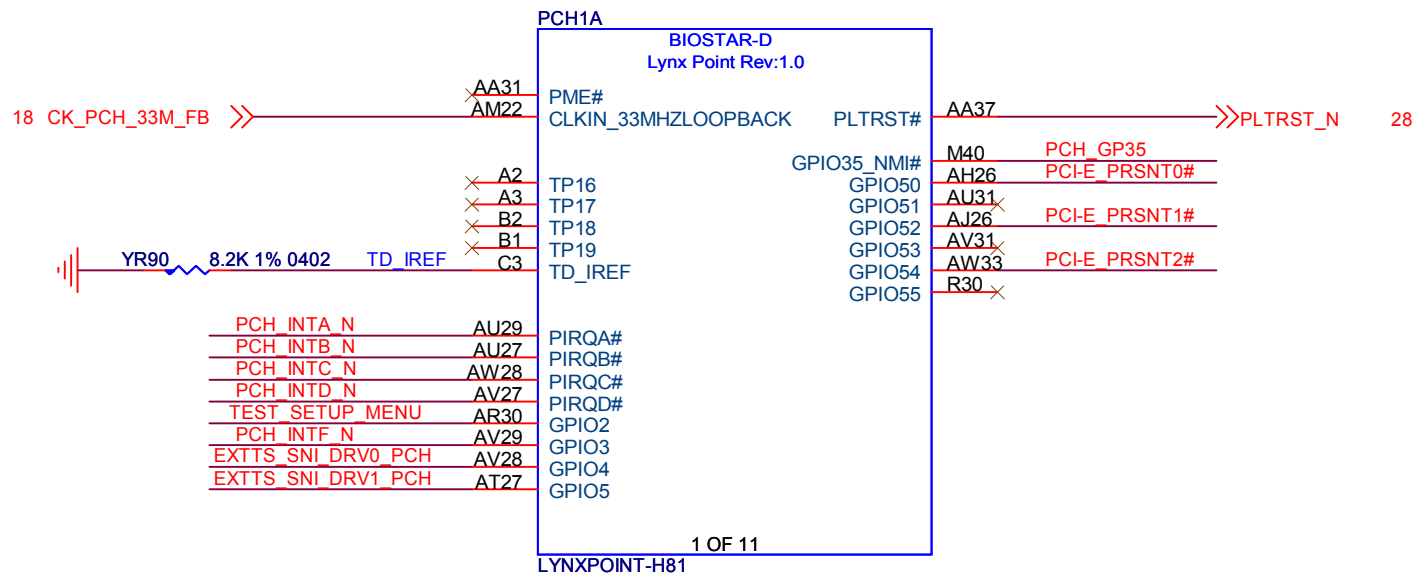
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Title: DDR3 DIMMB1/B2

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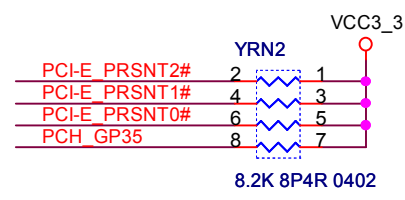
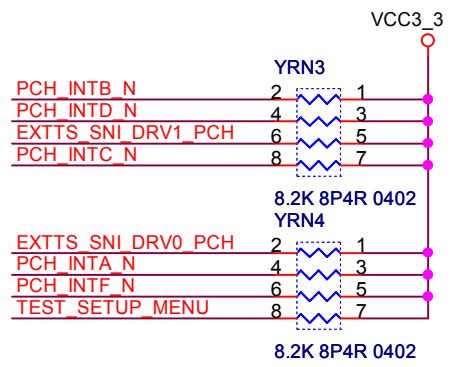
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PCH PART: Y+Reference

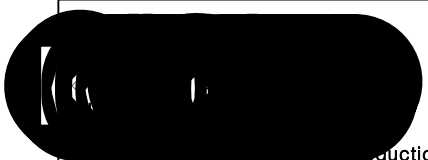


| GPIO51 | GPIO19 | |
|--------|--------|-----|
| 0 | 0 | LPC |
| 1 | 0 | PCI |
| 1 (d) | 1 (d) | SPI |


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Title

PCH NVRAM

Size
A

Document Number

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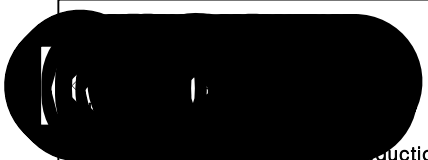
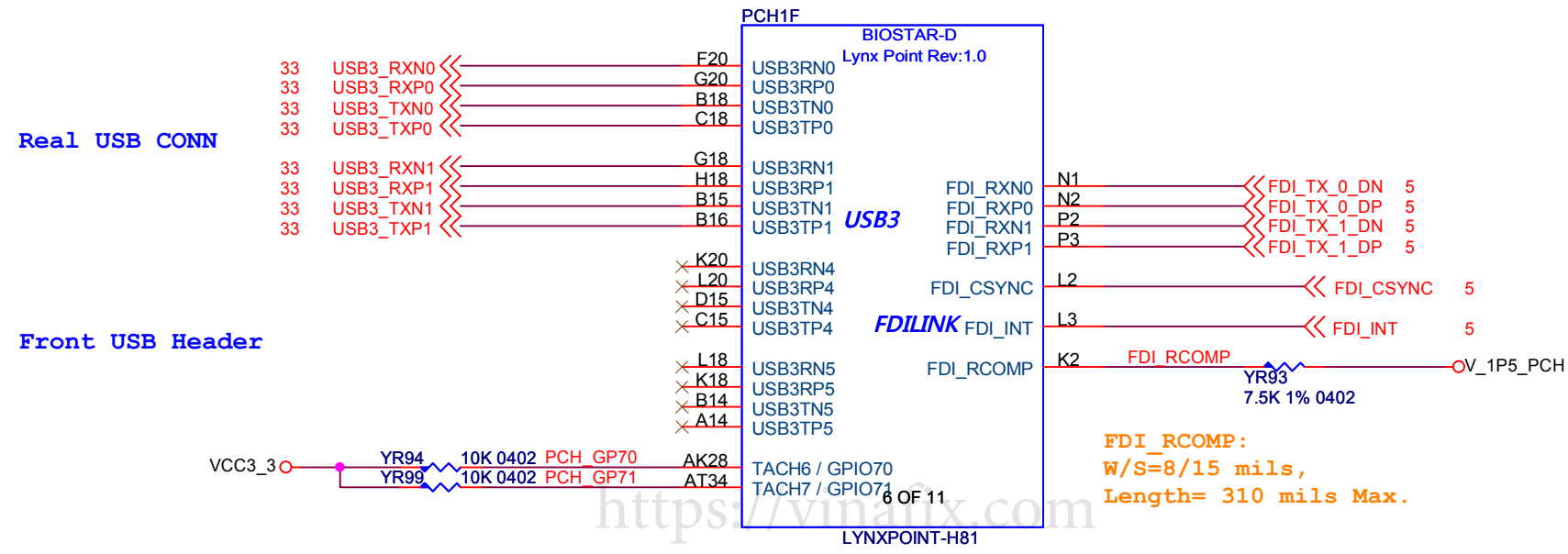
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Title

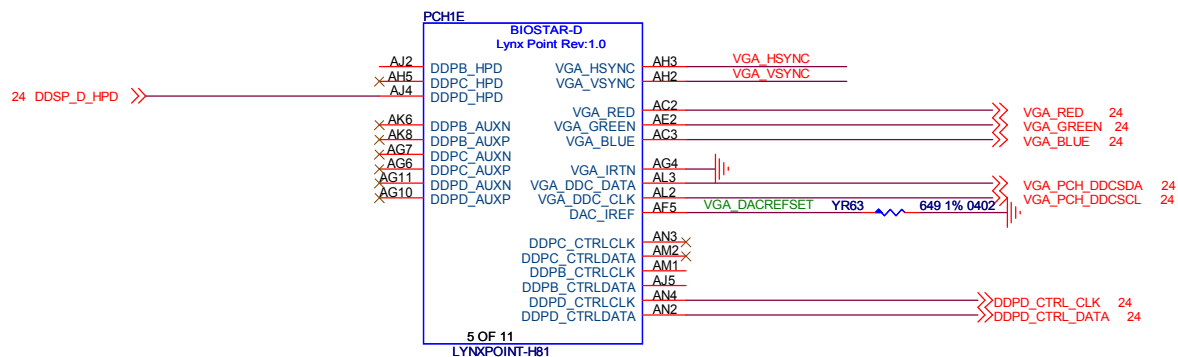
PCH USB3/FDI LINK

| | | |
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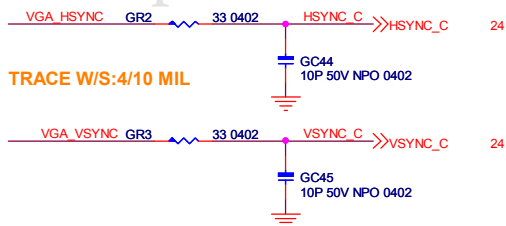
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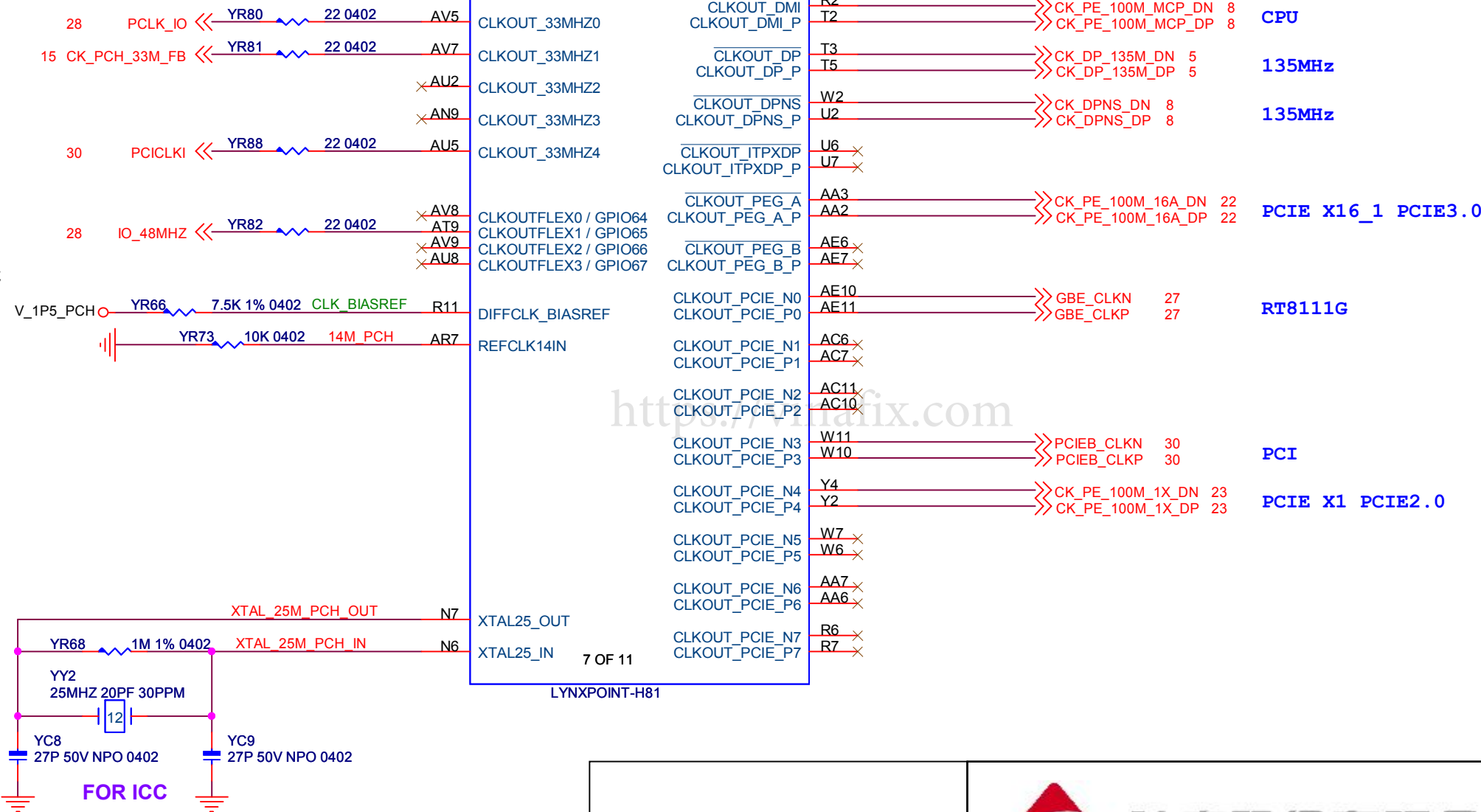
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PCH VGA/DISPLAY PORT

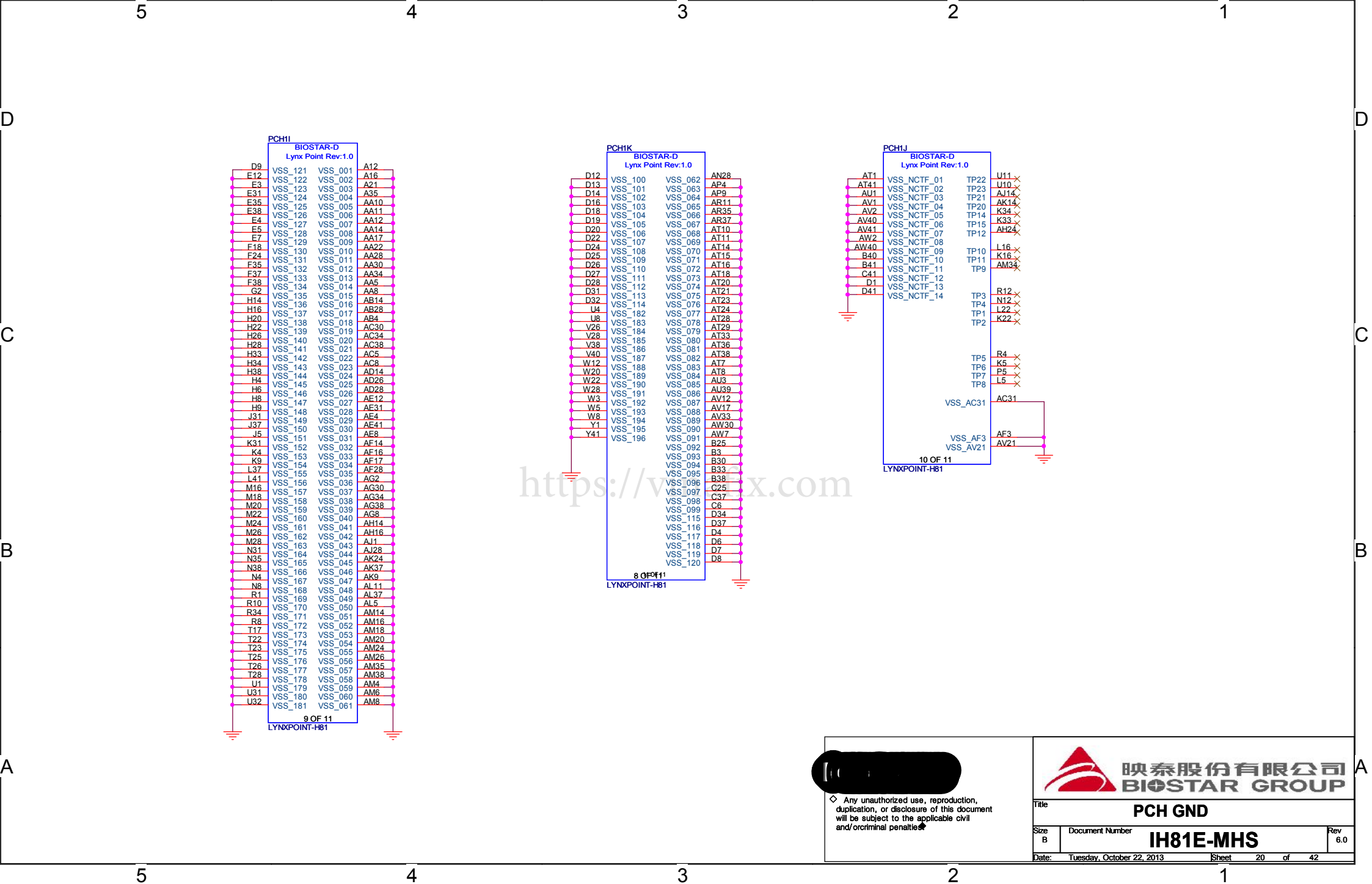
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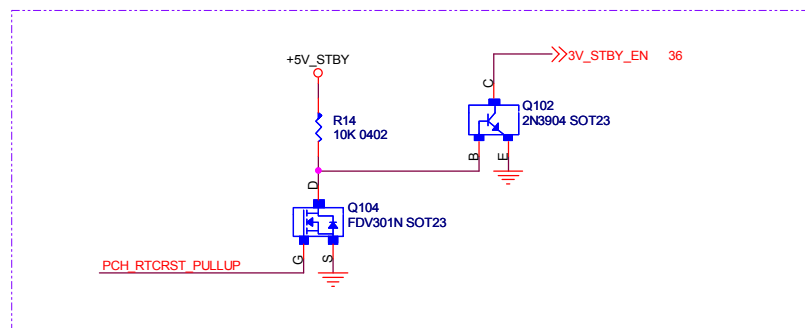
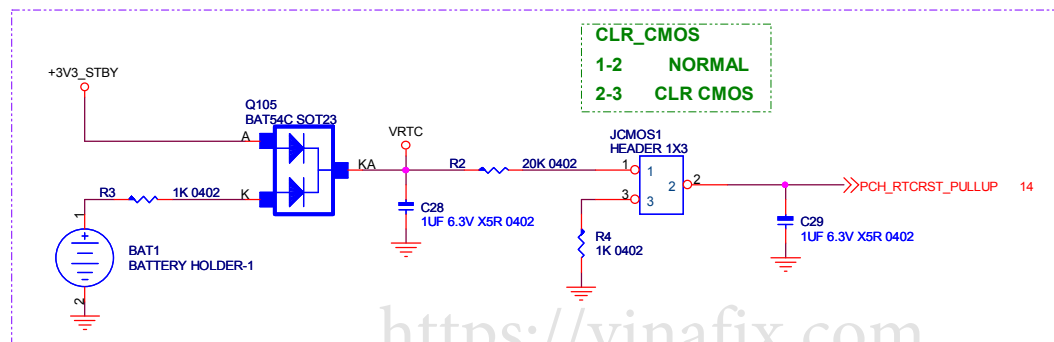
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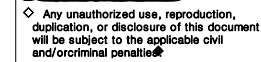
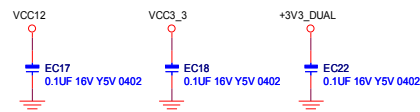




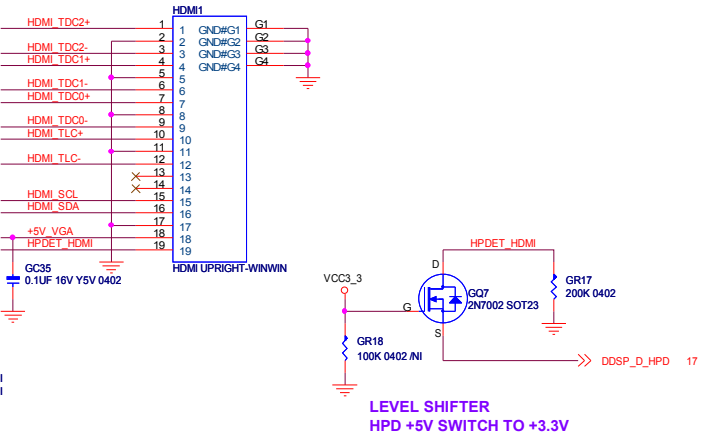
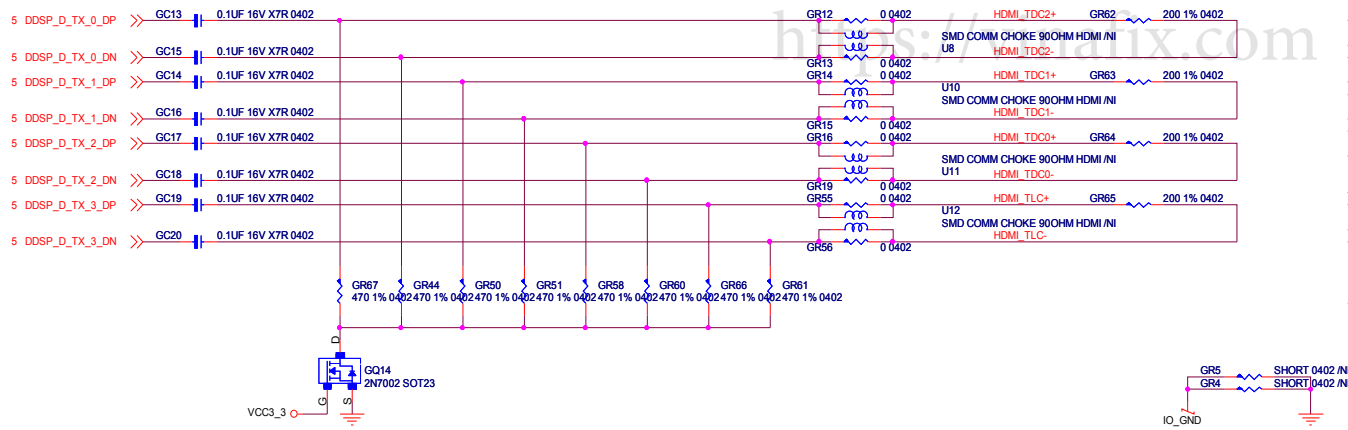
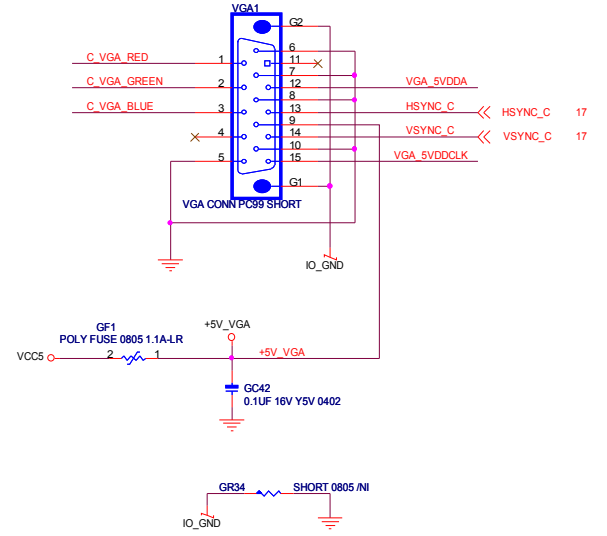
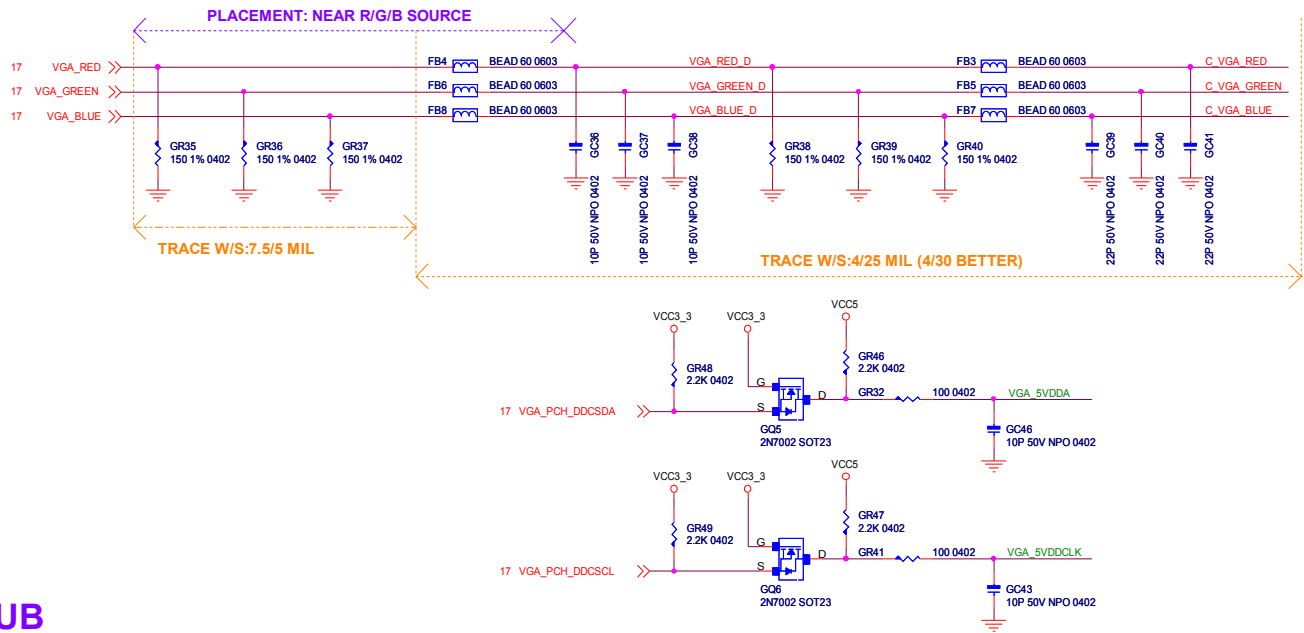


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| Title | | | |
| SPI ROM/RTC CRYSTAL/BAT | | | |
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1



D_SUB



HDMI

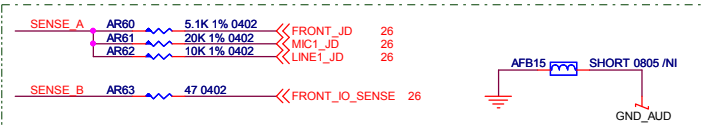
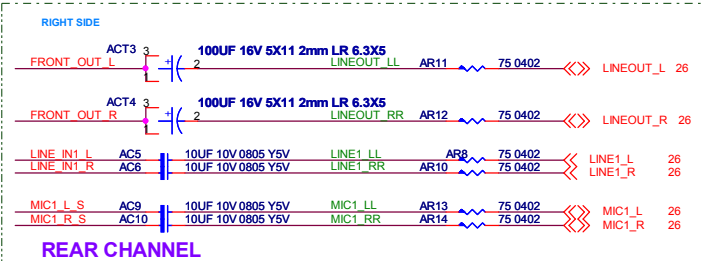
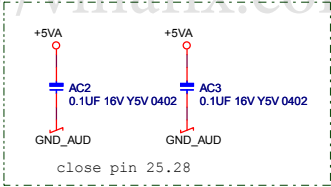
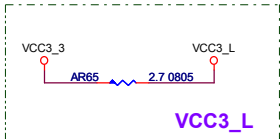
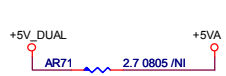
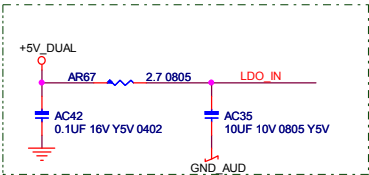
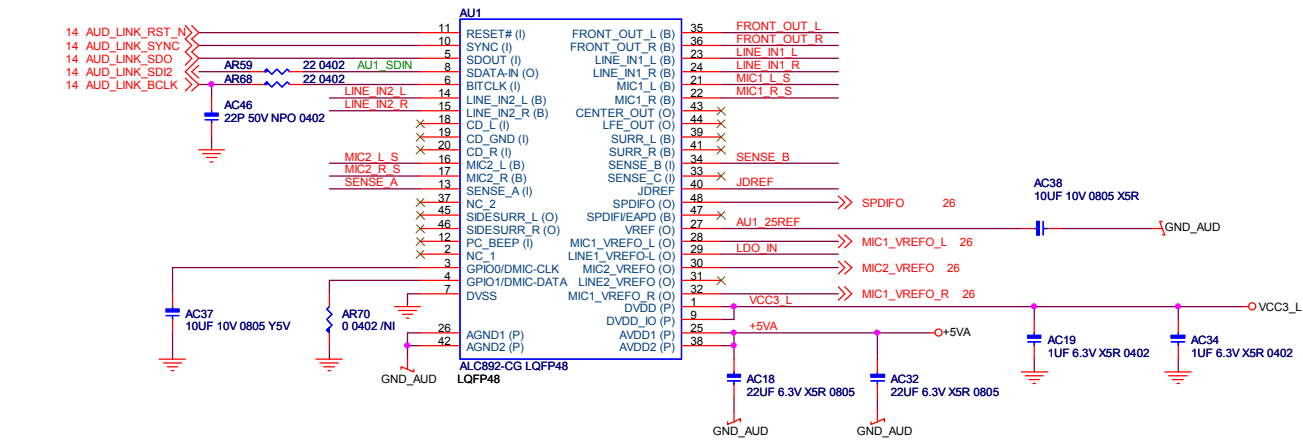


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AUDIO PART: A+Reference



COMPONENT CONTRAST LIST

| AUDIO | AR67 | AC35 | AC37 | AR70 | AR71 | AC18 | AC32 |
|-----------|----------|-------------------|-------------------|--------|----------|--------------------|--------------------|
| ALC 892CG | 2.7 0805 | 10UF 10V 0805 Y5V | 10UF 10V 0805 Y5V | NI | NI | 22UF 6.3V X5R 0805 | 22UF 6.3V X5R 0805 |
| ALC 887VD | 2.7 0805 | 10UF 10V 0805 Y5V | 10UF 10V 0805 Y5V | NI | NI | 22UF 6.3V X5R 0805 | 22UF 6.3V X5R 0805 |
| ALC 662CG | NI | NI | NI | 0 0402 | 2.7 0805 | 10UF 10V 0805 Y5V | 10UF 10V 0805 Y5V |

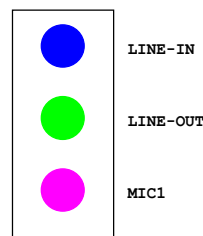
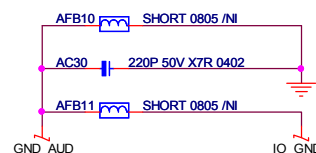
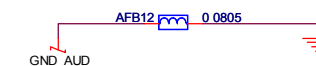
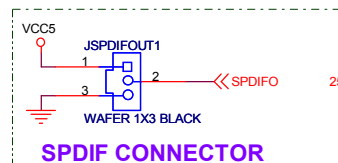
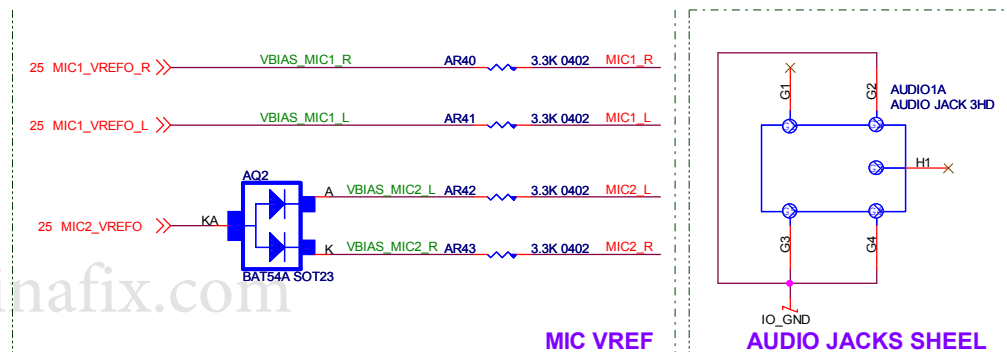
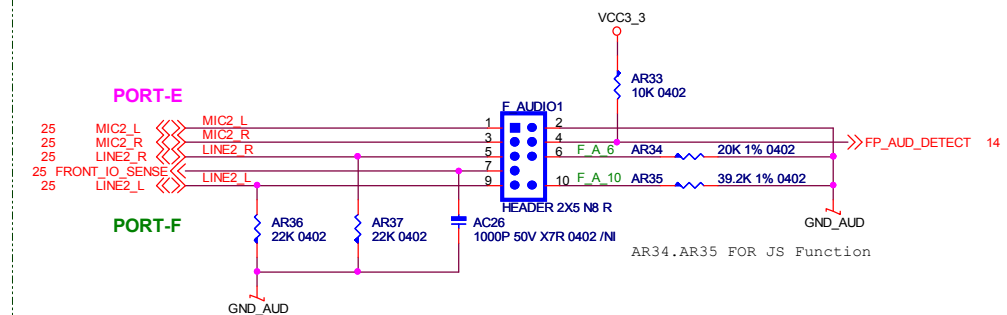
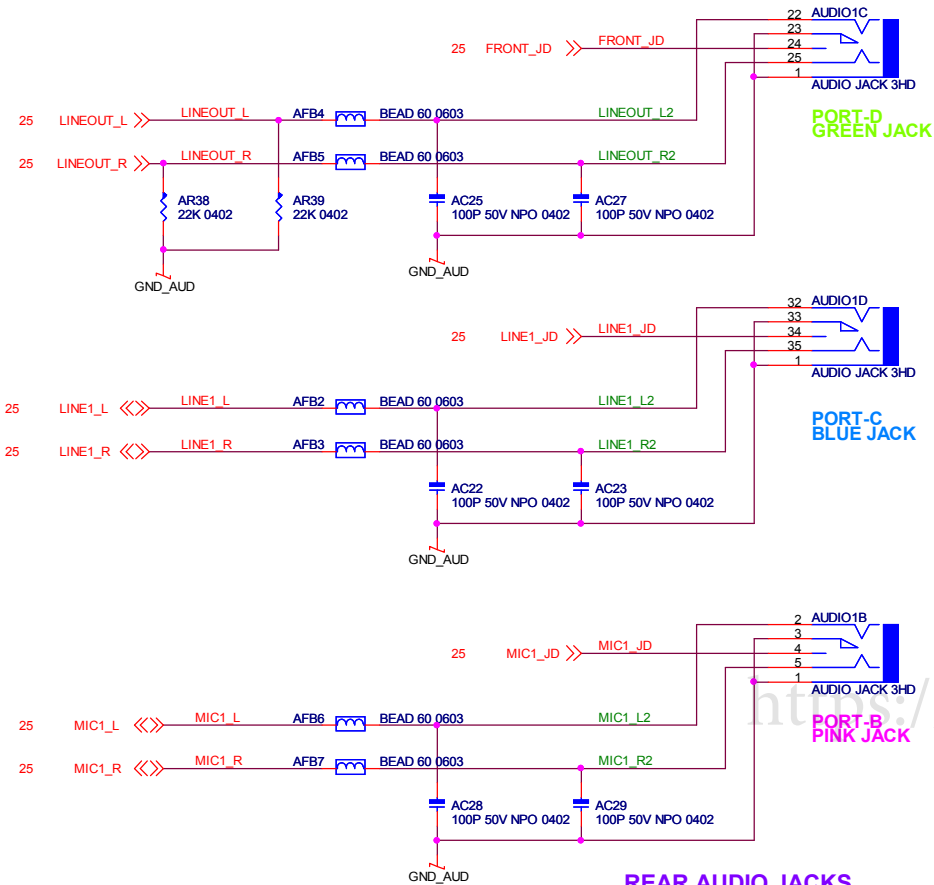


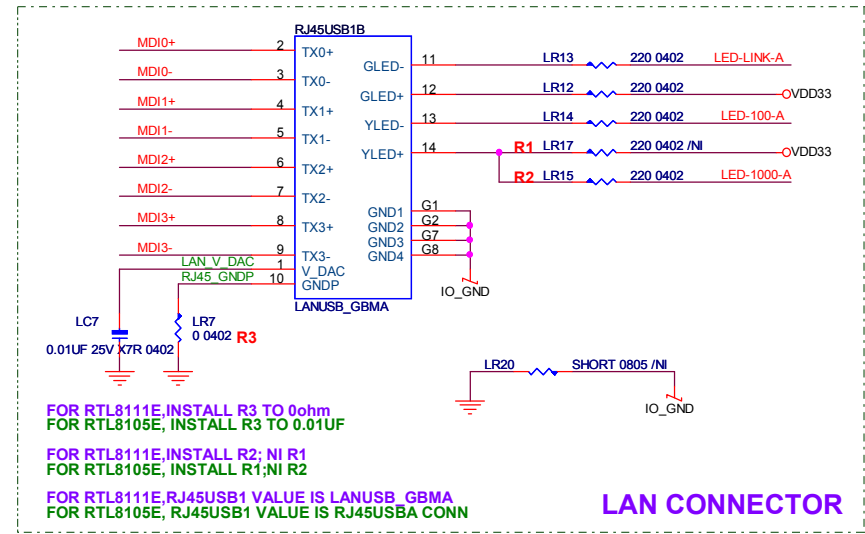
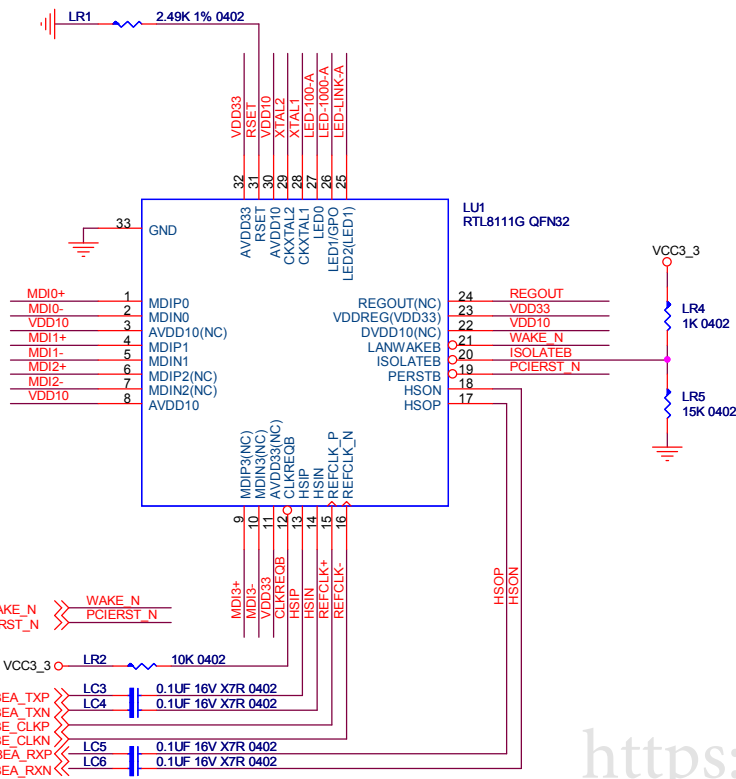
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Title: **AUDIO CODEC ALC662**

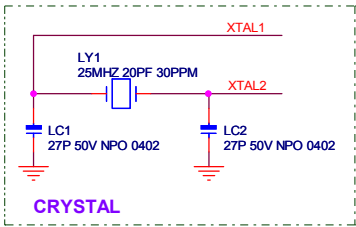
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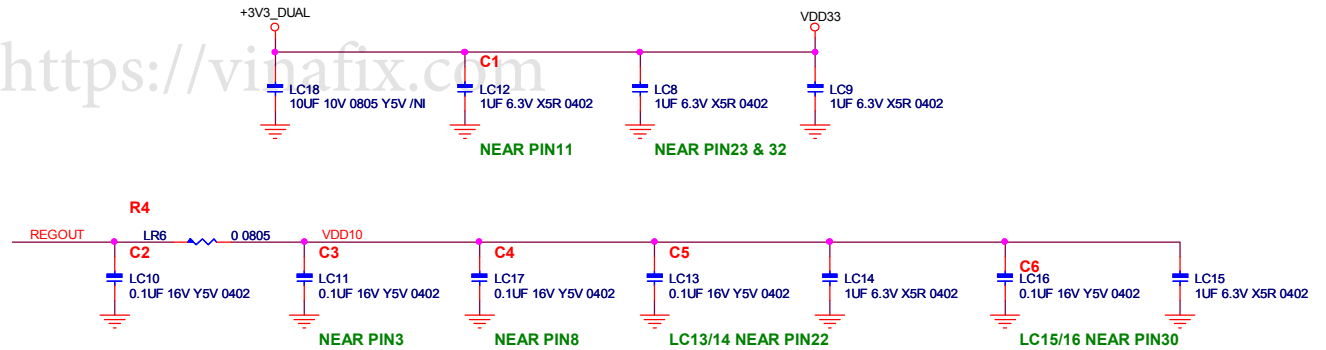


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COMPONENT CONTRAST LIST

| LAN PARTS | R1 | R2 | R3 | R4 | C1 | C2 | C3 | C4 | C5 | C6 | RJ45 CONN |
|-----------|----|----|--------|----|----|----|----|----|----|----|---------------|
| RTL8111G | X | O | 0ohm | O | O | O | O | O | O | X | LANUSB_GBMA |
| RTL8106E | O | X | 0.01uF | X | X | X | X | X | X | O | RJ45USBA CONN |



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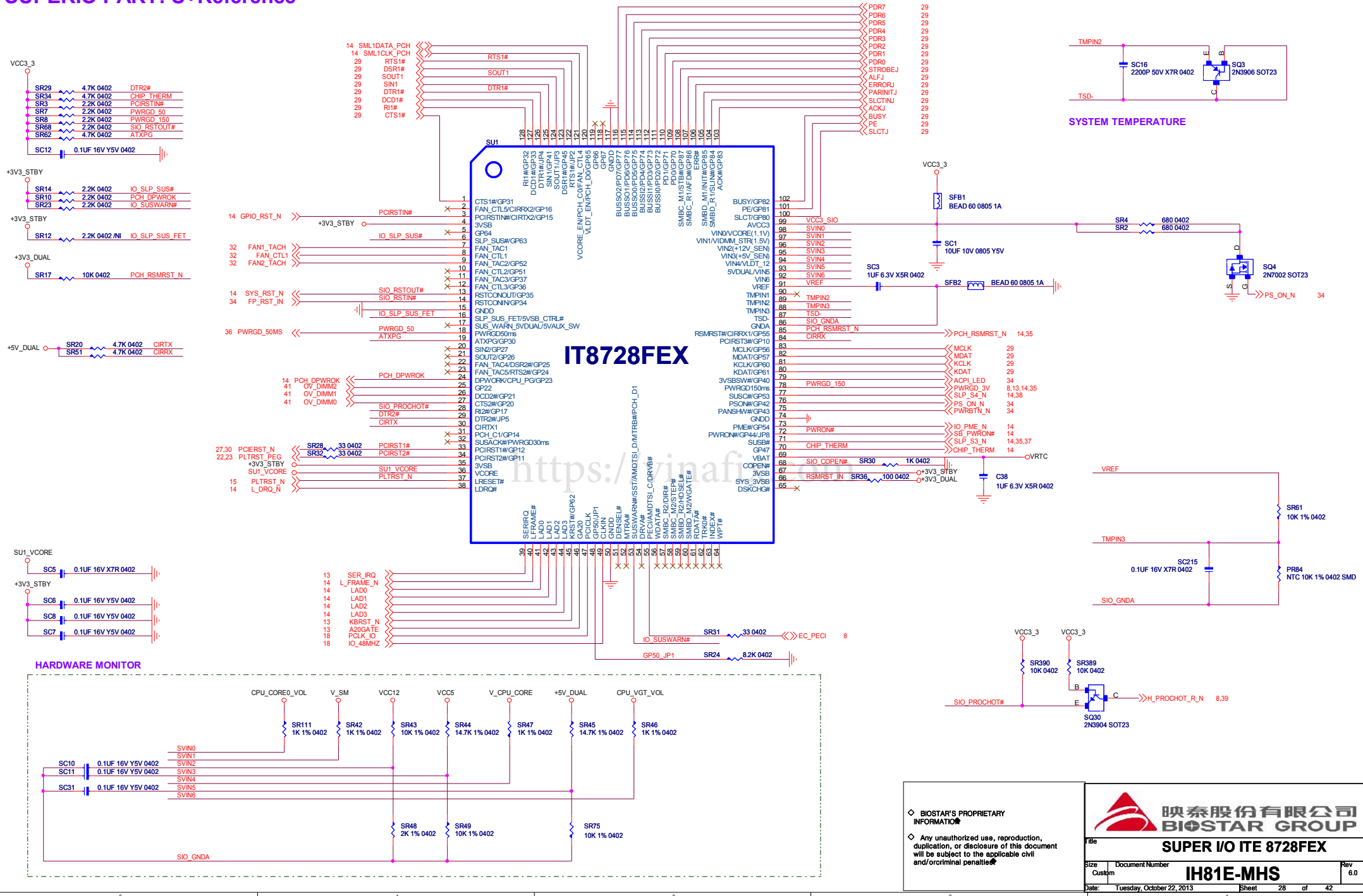
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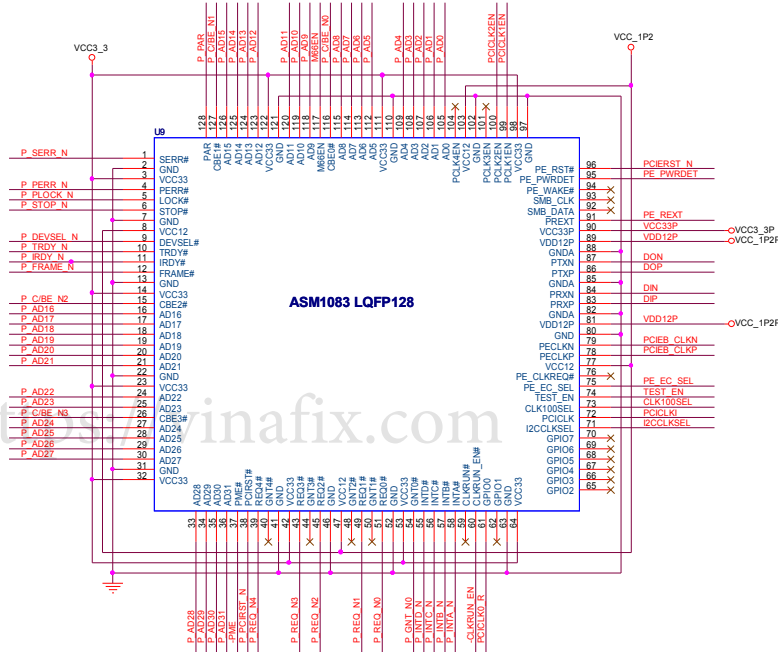
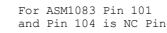
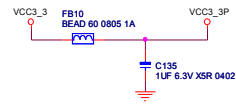
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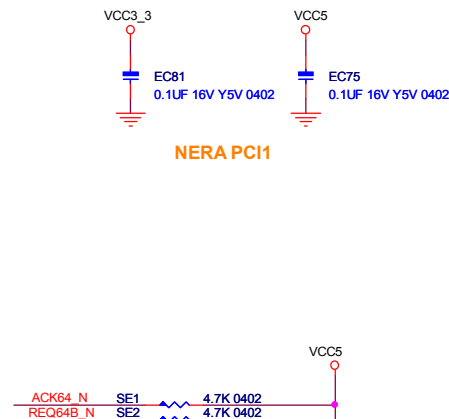
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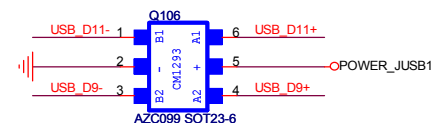
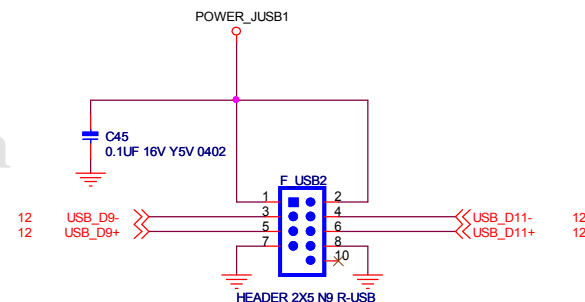
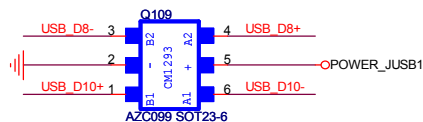
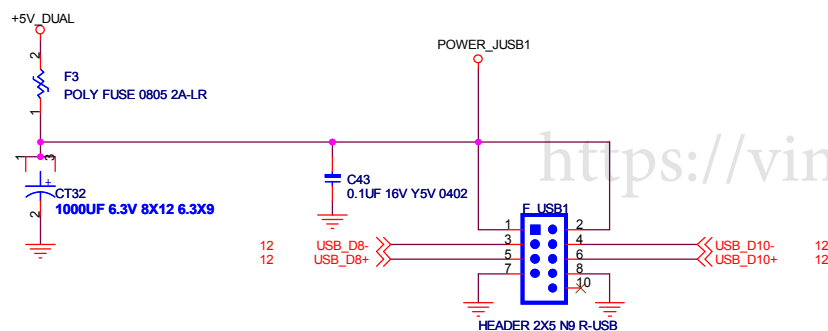
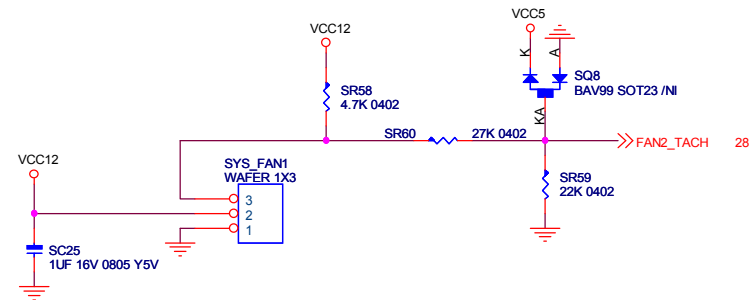
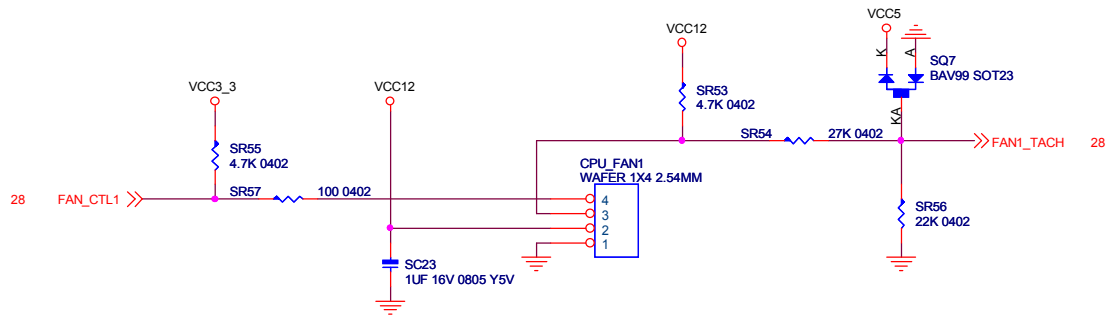
SUPERIO PART: S+Reference







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| PCI SLOT | | | |
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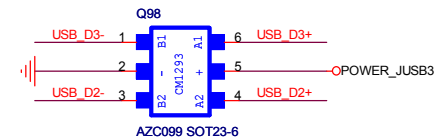
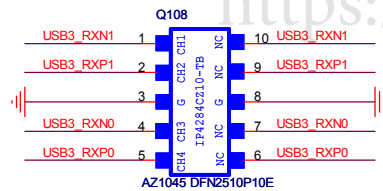
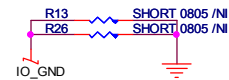
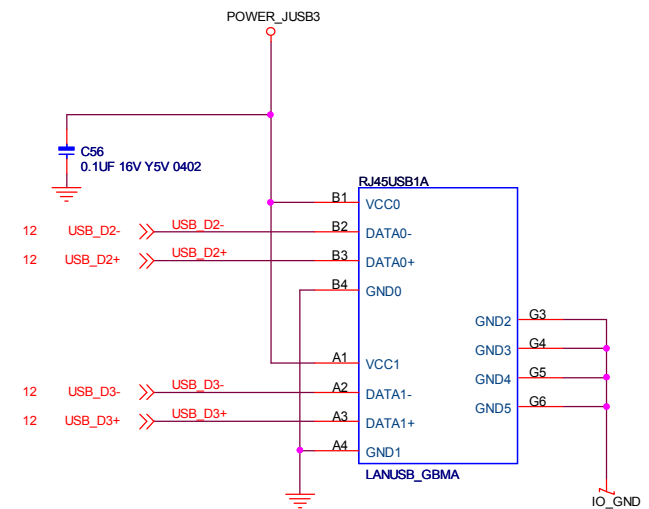
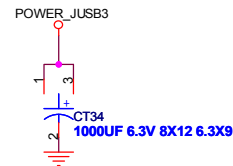


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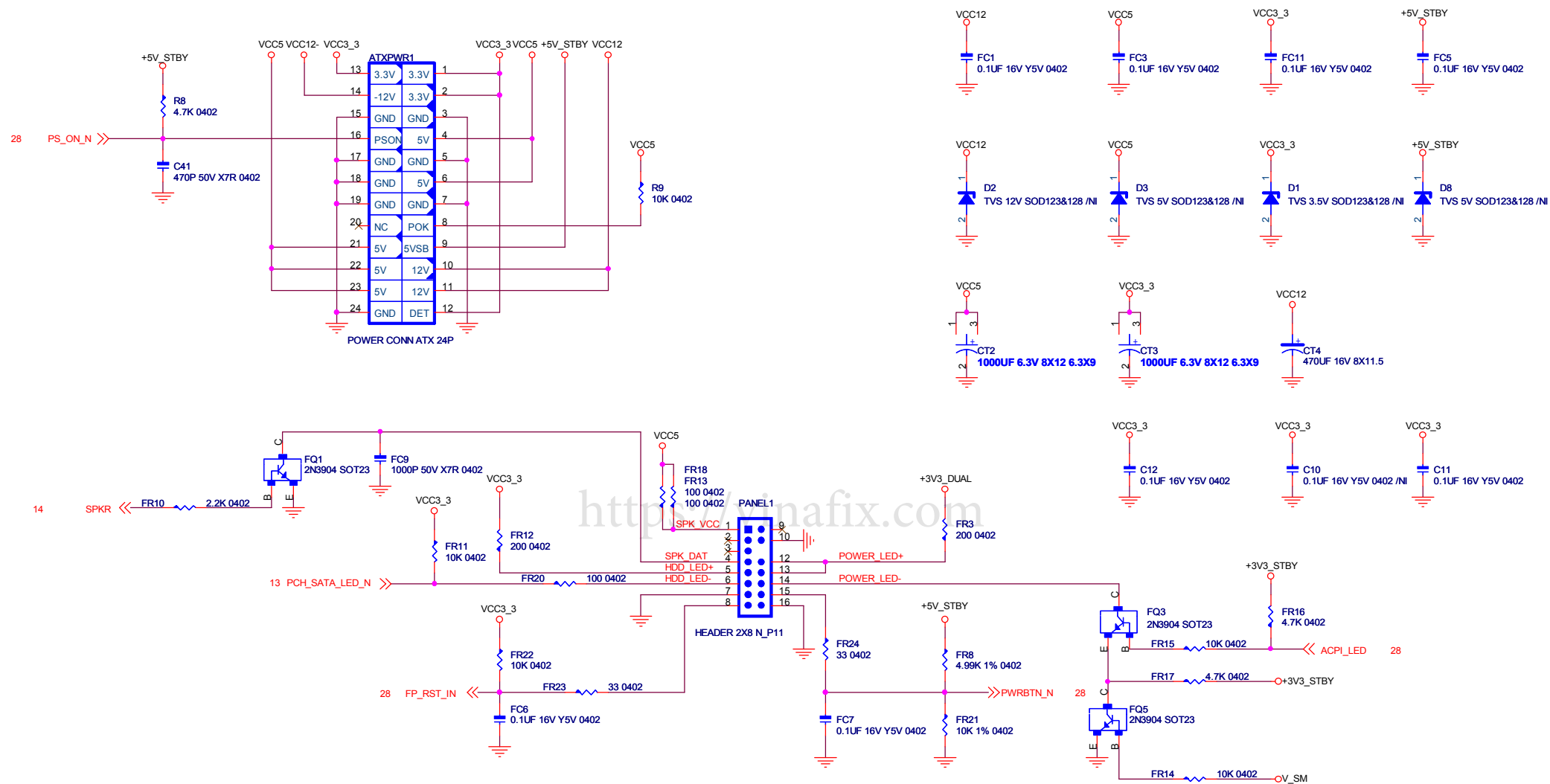
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| FRONT USB & FAN | | |
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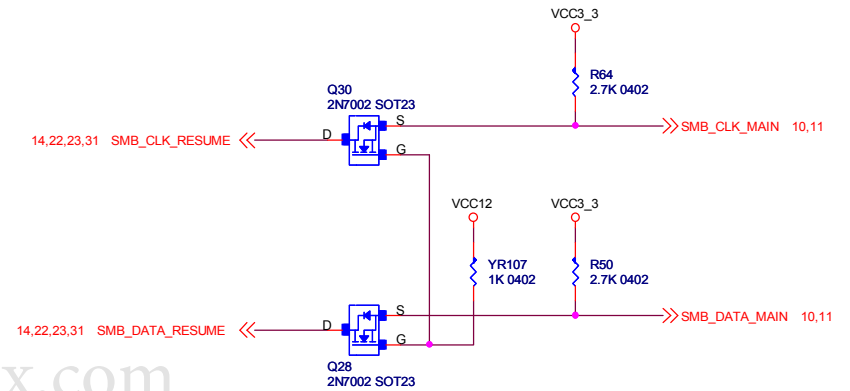
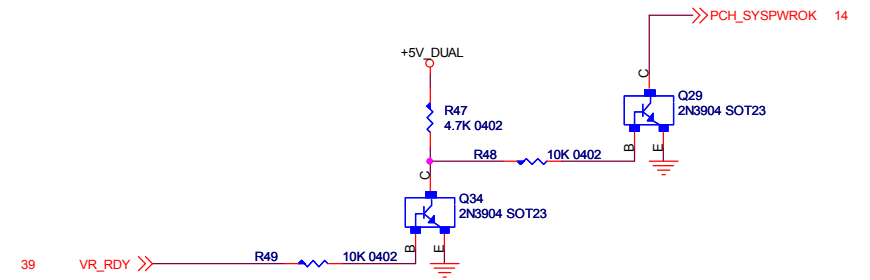
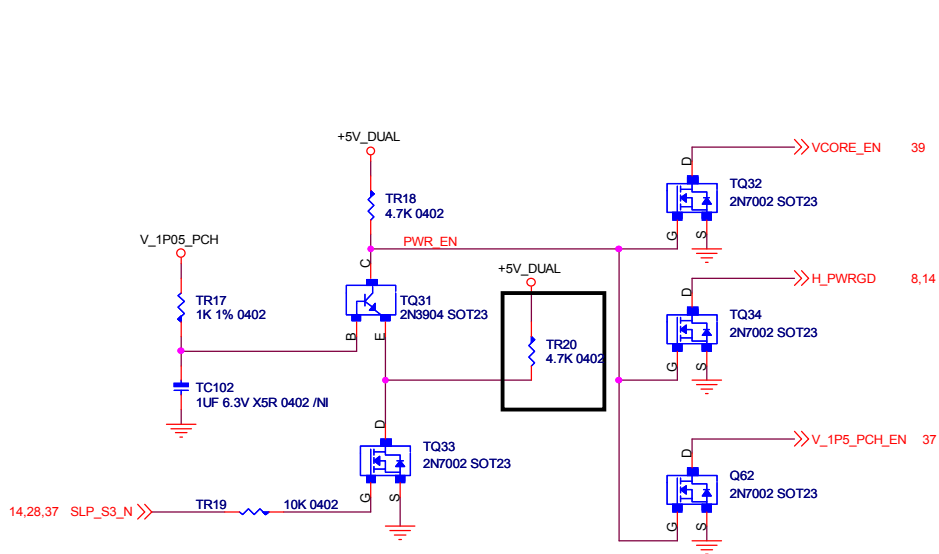
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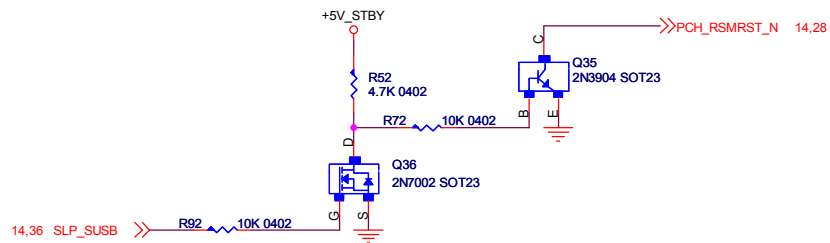
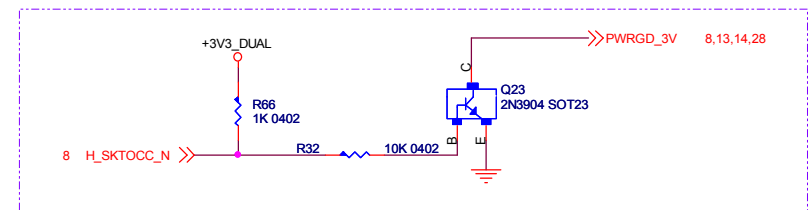
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FOR POWER TEST



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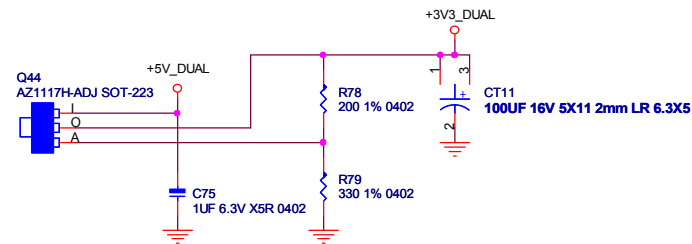
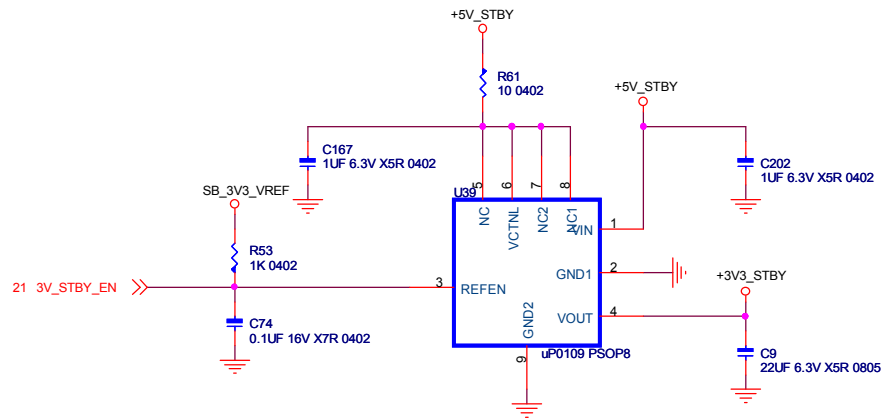


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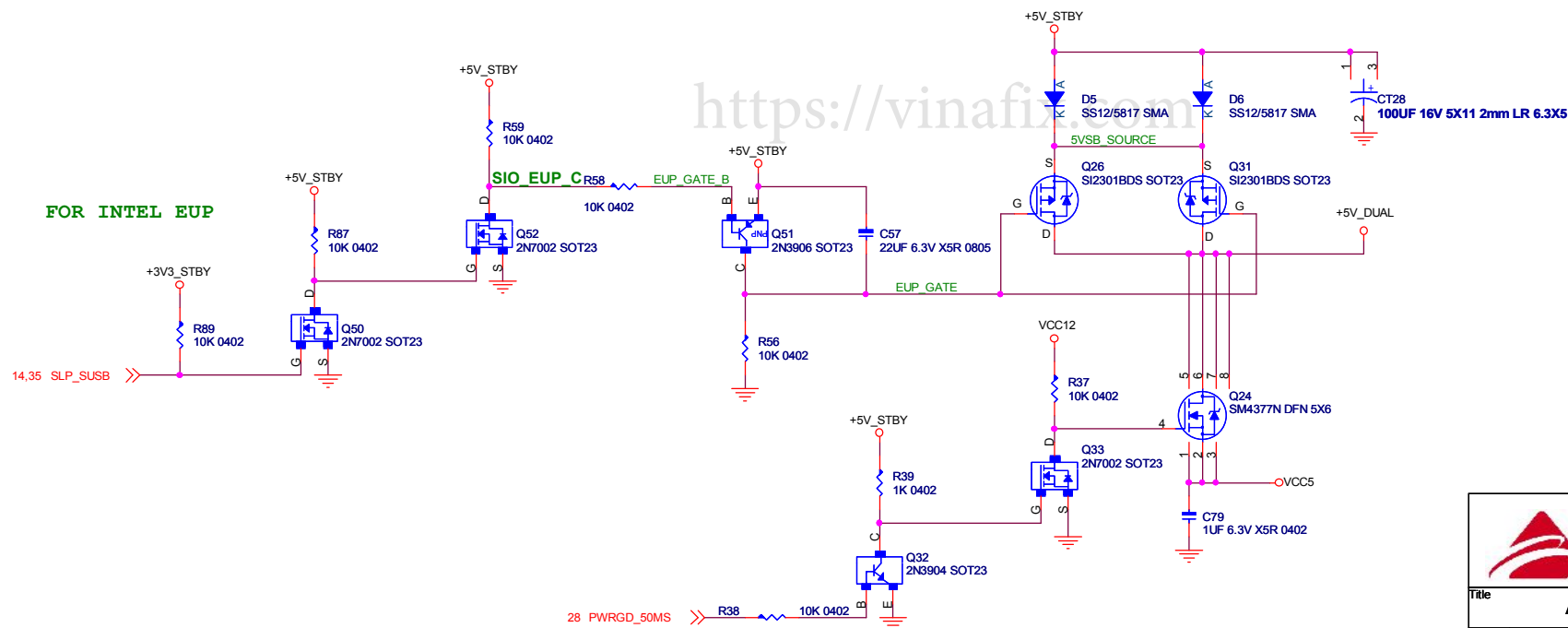


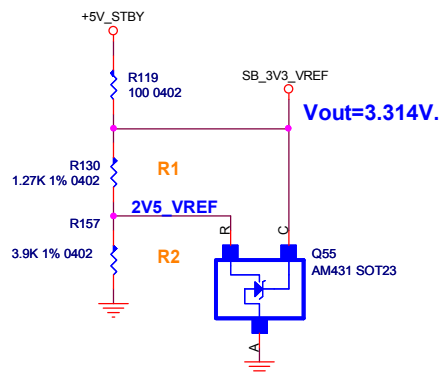
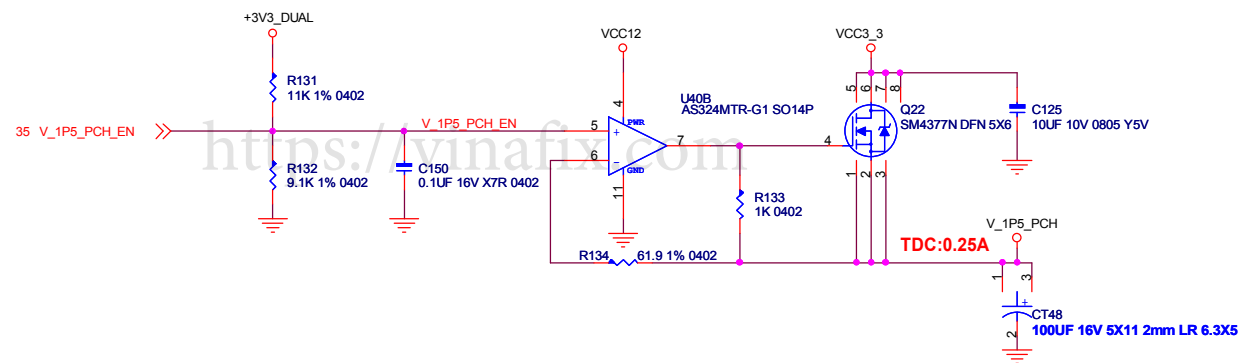
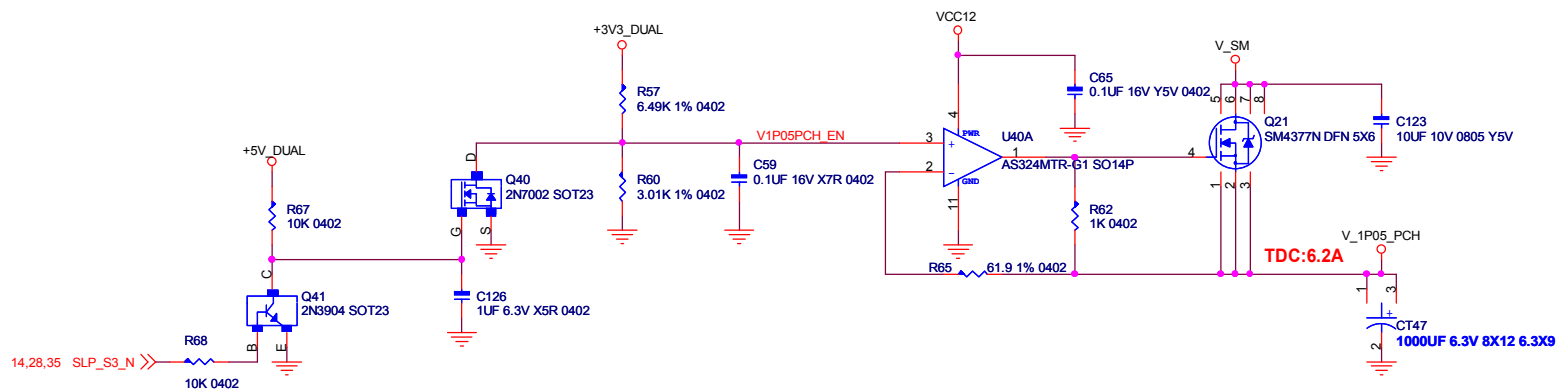
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| RESUME RESET LOGIC | | |
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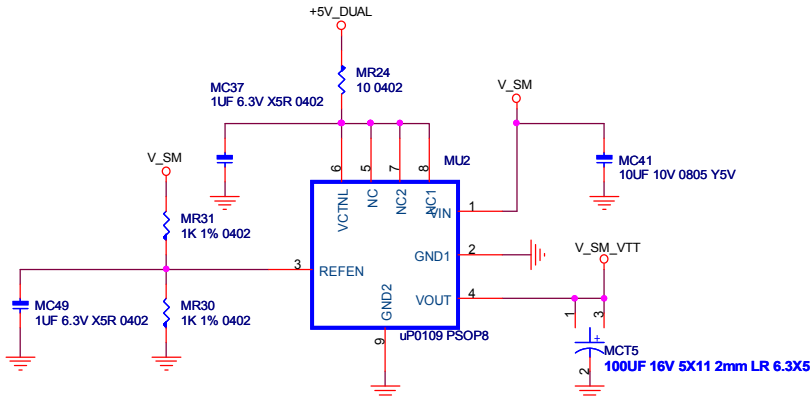
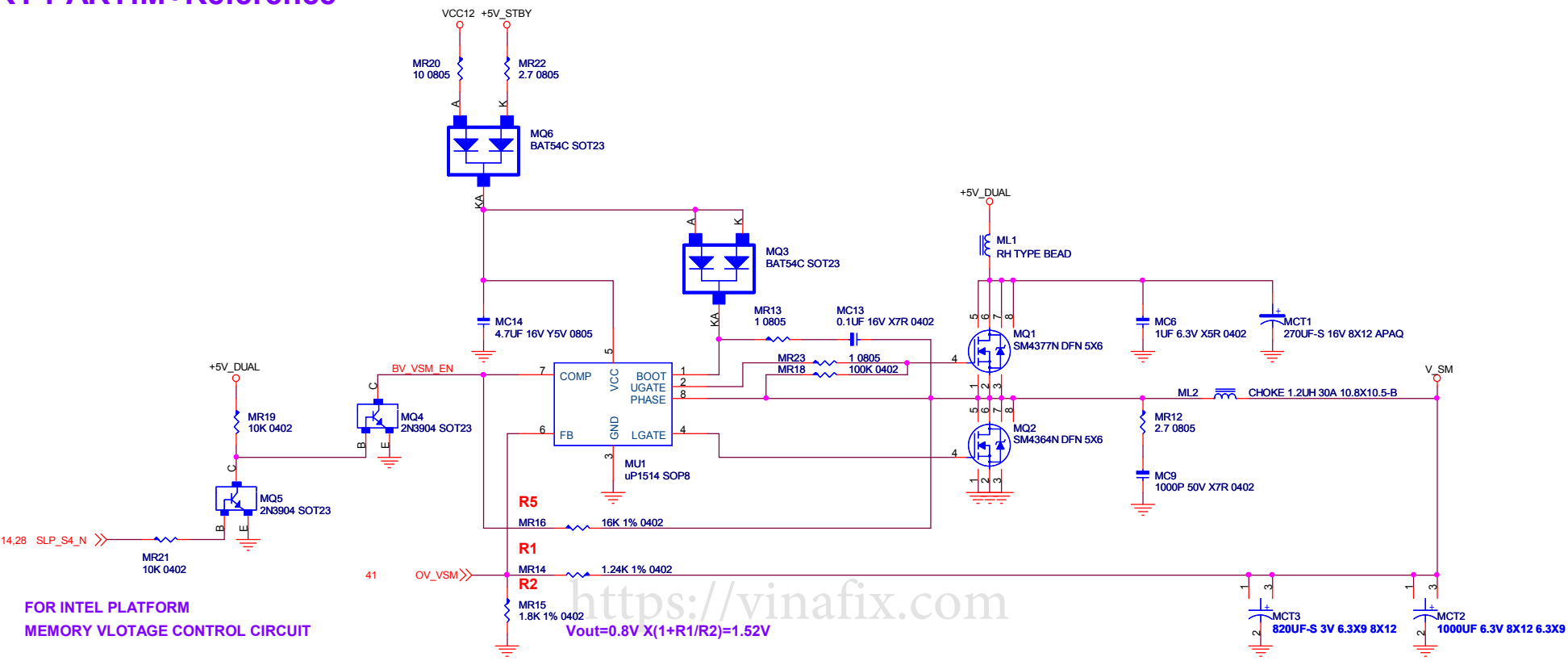


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MEMORY PART:M+Reference



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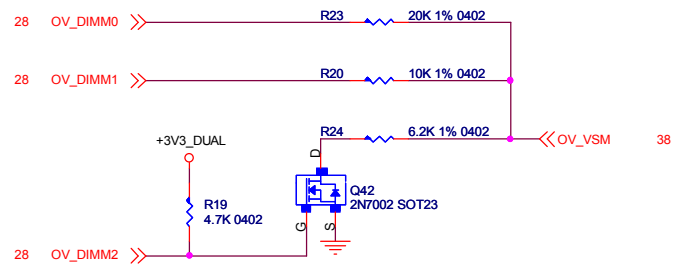
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| V_SM | OV_VSM2 | OV_VSM1 | OV_VSM0 |
|----------------|---------|---------|---------|
| 1.36V | 0 | 1 | 1 |
| 1.52V(DEFAULT) | 1 | 1 | 1 |
| 1.57V | 1 | 1 | 0 |
| 1.62V | 1 | 0 | 1 |
| 1.67V | 1 | 0 | 0 |

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Title

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Size B

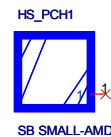
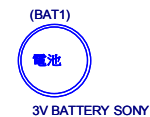
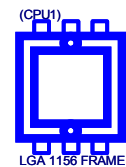
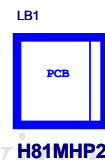
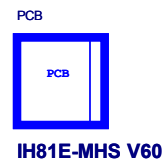
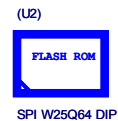
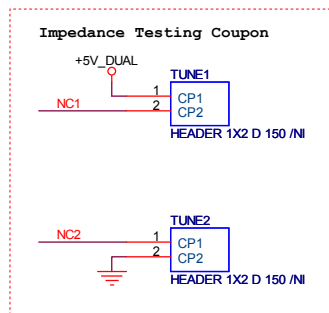
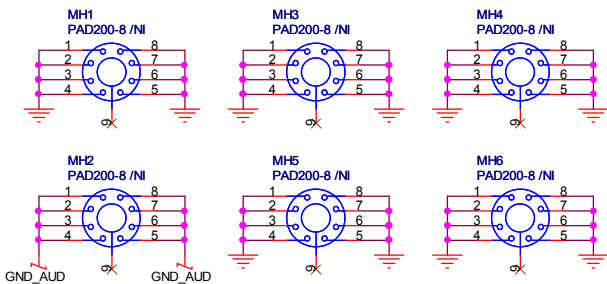
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